PROJECT NARRATIVE

PROJECT BACKGROUND

The United States Environmental Protection Agency (USEPA) has lowered the Arsenic Maximum Contaminant Level (MCL) from 50 parts per billion (ppb) to 10 ppb. All community water systems, such as that operated by Arizona American Water (AAW), are required to comply with the new Arsenic standard by January 2006. To comply with the USEPA mandate, AAW proposes to construct a new 19.3 mgd treatment facility using the coagulation-filtration process to remove naturally occurring arsenic from groundwater. This facility will be used to treat groundwater used to supply AAW's Paradise Valley District.

SITE DESCRIPTION

The water supply for AAW's Paradise Valley District is distributed through the Miller Road Booster Station (MRBS), which is located east of Cattletrack Road (Miller Road) and approximately a quarter mile north of McDonald Drive. The MRBS site is the proposed location for the Paradise Valley District's arsenic removal facilities. The site, owned by AAW, consists of five parcels that comprise approximately 8 acres of land. Additional detail on these parcels is summarized below:

Parcel Identifier	Parcel No.	Address	Parcel Size, sf	Current Zoning	Proposed Zoning
1	174-13-931	6237 N. Miller Road	134,992	R1-43	No Change
2	174-13-932	6223 N. Miller Road	69,696	R1-43	No Change
3	174-13-934	6215 N. Miller Road	101,495	R1-43 HP	No Change
4	174-13-935	6195 N. Miller Road	39,204	R1-43 HP	No Change

The Paradise Valley Arsenic Removal Facility (PVARF) will be situated on the south side of the property (Parcel 2, Parcel 3, Parcel 4, and a portion of Parcel 1) and will be constructed over approximately 5 acres of the site.

The groundwater for this district is provided by seven wells: three of which are located on the MRBS property and the remaining wells are located within 2-miles of the site. The groundwater from these seven wells will be treated at this site with provisions for the addition of another well in the future. The facilities necessary for treatment, storage and distribution of water include new filtration vessels, treatment chemical storage and feed facilities, backwash clarification structures, finished water reservoirs, booster pumps, and residual solids thickening and dewatering. New administration, customer service, laboratory, and Supervisory Control and Data Acquisition monitoring facilities will be included at part of the project.

COMMUNITY INVOLVEMENT

AAW has involved the surrounding community in the planning for this project by holding one-on-one meeting with the adjacent property owners and an Open House meeting. Two one-on-one meetings were held with a total of five neighborhood participants. Four citizens attended the Open House meeting. The attendees of these meetings did not voice opposition to the project. They did however

indicate the importance of maintaining the rural character of the property. The neighbors also stated specific considerations which are discussed in the meeting notes and addressed under Project Aesthetics. The outcome of these meetings is detailed in the Citizen Notification and Public Involvement Report included with this Rezoning Application. AAW plans to hold an additional Open House meeting prior to the Planning and Zoning Commission Hearing.

PROJECT AESTHETICS

During the public involvement meetings, the citizens indicated various issues of importance regarding the PVARF that they would like to have considered during the facility design. These issues included impacts on the surrounding community due to noise, odor, traffic and architecture. Each item is discussed in detail in the following paragraphs.

SETBACKS

The required setbacks will be provided from the front, side and rear property boundaries in accordance with the R1-43 zoning requirements (front = 40 feet from property line, side = 20 feet, and rear = 35 feet). The location of the Customer Service Center located along Cattletrack Road will be located an additional 60 feet from the property line providing a total front yard setback of 100 feet.

NOISE

Currently, the well and distributive pumps along with associated valves and instrumentation at the MRBS are located outside. Several neighbors indicated that they can hear the pumps starting. They indicated that the future facilities should have provisions to mitigate noise impacts on the surrounding community. The proposed PVARF will provide fully-enclosed pump rooms which will address the noise impacts expressed by the neighbors.

ODOR

The filtration process used to remove arsenic from the groundwater does not generate odor as a byproduct. The chemical storage and feed facilities that can produce gases under high temperature conditions will be enclosed in an air-conditioned building. This information was discussed with the citizens during the Open House meeting.

TRAFFIC

Cattletrack Road (Miller Road alignment) is classified as a minor collector between McDonald Drive and Lincoln Drive. It is not identified as a major street on the City's Streets Master Plan. Cattletrack consists of two lanes, one lane in each direction. The intersection of Cattletrack and McDonald Drive has a traffic signal.

A traffic study conducted by Scottsdale Engineering & Associates, Inc. indicated that the daily traffic volume along Cattletrack Road (Miller Road alignment) was 1,836 vehicles. The average speed of the vehicles measured was 33 miles per hour (mph); the 85th percentile speed was 40 mph. The study indicates that these volumes and speeds are consistent with a local collector street. Typically, minor collector streets are designed to accommodate traffic volumes of at least 5,000 vehicles per day. There are residential driveways along Cattletrack which are limited in number due to the large lot sizes present in this area.

The traffic volume due to the PVARF will show a modest increase over the current operations due to increased operator attendance at the site, bulk chemical deliveries, and liquid sludge hauling. The estimated traffic volume is shown in the following table:

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Type	Trip Frequency	Days Per Week	Vehicle	Trips Per Month	Trips per Workday
Customer	3/day	5	Passenger	60.0	3.0
Employees	20/day	5	Passenger	400.0	20.0
Plant Operators	4/day	7	Passenger	112.0	4.0
Distribution Crews	4/day	5	Single Unit Truck	80.0	4.0
Solids Hauling	1/week		WB-50	4	0.14
Chemical Delivery Ferric	1/month		WB-50	1	0.04
Chemical Delivery Caustic	2/month		WB-50	2	0.07
Chemical Delivery Hypochlorite	3/month		WB-50	3	0.11
Chemical Delivery Polymer	1/month		Single Unit Truck	1	0.04
				Total	**31**

A WB-50 vehicle (large semi-trailer combination) will be used for the turning radii and geometric layout of plant drives. Plant drives will be 20 feet wide and paved with asphaltic concrete except in the chemical unloading area, which will be concrete. Turning radii will be a minimum of 25 feet on the inside.

ARCHITECTURE

The AAW property is located within an area that maintains a rural character with lots of 35,000 square feet or greater and large setbacks. The properties to the south provide a meandering pedestrian pathway along the street frontage.

The character of the surrounding community will be taken into consideration during the design the buildings and facility fencing to create an environment that interacts with the surrounding community. The outcome of the neighborhood meetings indicated that the facility should maintain a rural character, and the materials of construction should mirror the color and consistency found in the area. AAW has subcontracted Michael Willis Architects to design the buildings and surrounding fence. MWA is participating in the community involvement process to understand and incorporate the architectural needs of this community.

The facility will be setback from the roadway to allow for the open space along the street frontage to be maintained. Although the facility will be fenced, the fence will also be setback from Cattletrack. In addition, the fence design will provide variations in materials of construction and landscaping to blend this structure with the surrounding properties.

McCloskey Peltz will act as the Landscape Architect for the project and are also involved in the public involvement process. There are many large mesquite trees on the eastern boundary of the project site that AAW will maintain through the construction process.

USE PERMIT NARRATIVE

PROJECT BACKGROUND

The United States Environmental Protection Agency (USEPA) has lowered the Arsenic Maximum Contaminant Level (MCL) from 50 parts per billion (ppb) to 10 ppb. All community water systems, such as that operated by Arizona American Water (AAW) in their Paradise Valley District, are required to comply with the new Arsenic standard by January 2006. To comply with the USEPA mandate, AAW proposes to construct a new 19.3 mgd treatment facility using the coagulation-filtration process to remove naturally occurring arsenic from groundwater. This facility will be used to treat groundwater used to supply AAW's Paradise Valley District.

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PROPERTY ZONING

AAW intends to use Parcel Nos. 2, 3, 4, and a portion of Parcel 1 to construct an arsenic removal facility. The facility will be used to remove naturally occurring arsenic from the groundwater prior to distributing this water supply to their customers in this area.

Originally, all four parcels held the R1-43 zoning classification. The property owner to the south, Janie Ellis, decided to pursue a Special Campus, Historic Property (S-C HP) designation for her property. At

the time, the City ordinance for this designation required that at least 12 acres be available to qualify for the designation. In addition, the ordinance allowed the attachment of adjacent property to obtain the required 12 acres. AAW was consulted by Ms. Ellis during this process, and agreed that the adjacent parcels could be used for this purpose. There was no indication at the time that the S-C HP designation would restrict AAW's use of their property.

The R1-43 zoning supports the conditional use of the property for "public utility buildings, structures or appurtenances thereto for public service uses.

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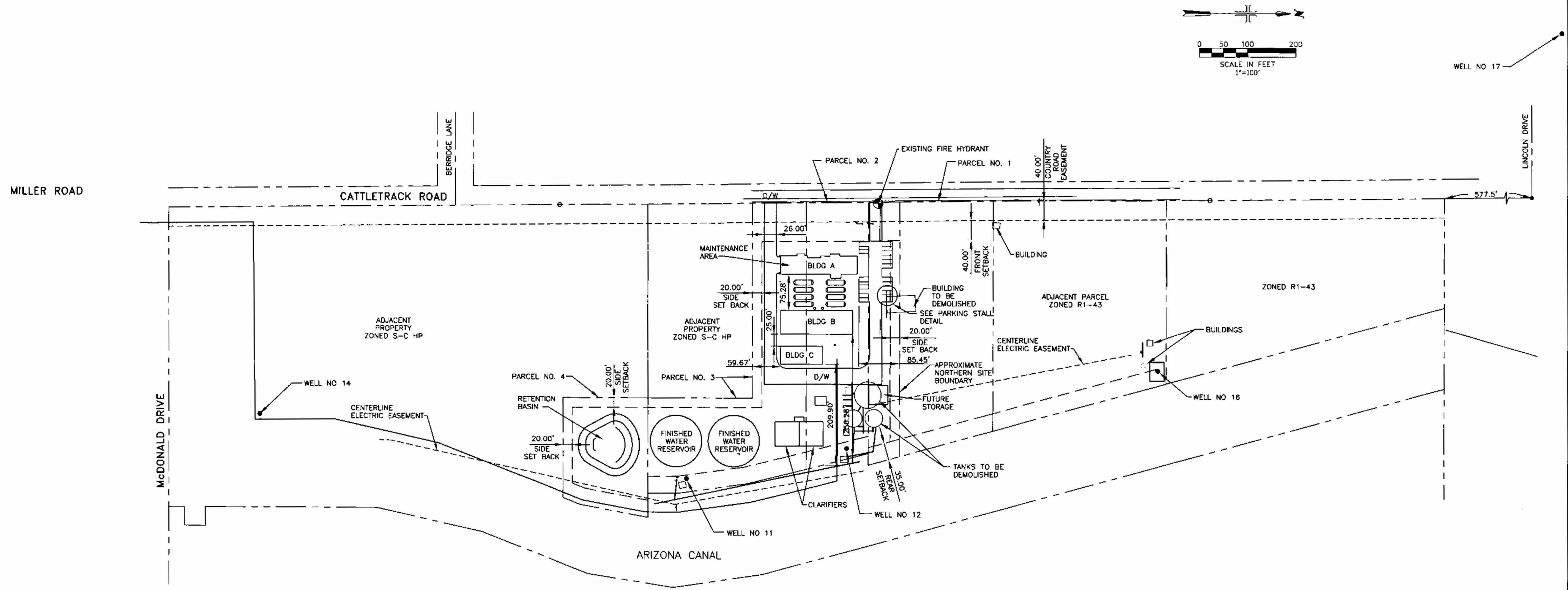

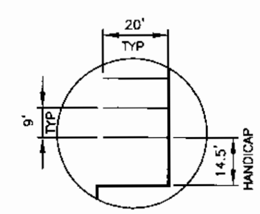

PARKING STALL DETAIL

PARCEL DATA

PARCEL NO.	APN	CURRENT ZONING	PROPOSED ZONING	ACREAGE
1	174-13-931	R1-43	NO CHANGE	3.099
2	174-13-932	R1-43	NO CHANGE	1.6
3	174-13-934	R1-43 HP	NO CHANGE	2.33
4	174-13-935	R1-43 HP	NO CHANGE	0.90

STRUCTURES

DESC	DIMENSION FT x FT	GROSS FLOOR AREA, SF	MAX, HEIGHT, FT	PROPOSED USE
BLDG A	160 x 35	5,600	18	ADMINISTRATION, CUSTOMER SERVICE, LAB
BLDG B	150 x 48	7,200	18	CHEMICAL STORAGE / FEED, PUMP ROOM
BLDG C	90 x 35	3,150	28	SOLIDS HANDLING, STANDBY POWER
BLDG TOTAL		15.950		
RESERVOIRS	107 FT DIA	17,984	28	WATER STORAGE
CLARIFIERS	55 FT DIA	4,752	4	SETTLING
PROCESS TOTAL		22,736		

PROJECT DATA

PREAPPLICATION NUMBER: 239-PA-2004

LOCATION:
6215 NORTH MILLER ROAD
SCOTTSDALE, ARIZONA

OWNER:
ARIZONA AMERICAN WATER
19820 NORTH 7th STREET
PHOENIX, ARIZONA 85024

ZONING:
CURRENT: R1-43 HP (PARCEL NOS. 3 & 4)

SITE AREA: (INCLUDES 0.86 AC OF PARCEL NO. 1)
GROSS: 247,856 SF
NET: 195,731 SF

PARKING SPACES
REQUIRED: 11, 2 (BLDG A ONLY)
PROVIDED: 17, 1 HANDICAP

OPEN SPACE
REQUIRED: 53,238.83 SF
PROVIDED: 129,095 SF

LEGEND

- PROPERTY LINE
- CENTER LINE OF ROADWAY
- EASEMENT LINE
- SETBACK LINE

33-UP-2004
10-28-04

REVISIONS

PARADISE VALLEY ARSENIC REMOVAL FACILITY
CIVIL
SITE PLAN

ARIZONA AMERICAN WATER COMPANY
PARADISE VALLEY DISTRICT

DAMON S. WILLIAMS ASSOCIATES, LLC
2355 EAST CAMELBACK ROAD, SUITE 700
PHOENIX, ARIZONA 85016

DSWA

DRAWN BY SLB
PROJECT ENG'R CHC
APPROVED RRM

DATE SEPTEMBER 2004
PROJECT 23640003

USE DIMENSIONS ONLY
SCALE NA

USE APPROVED DRAWINGS ONLY FOR CONSTRUCTION PURPOSES

2302-0001-SP01

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